

Priority Claim

In the final Office Action, the Examiner indicates that a signed oath or declaration is required that mentions the provisional patent application (No. 60/155,802) from which priority is claimed. This requirement is improper and does not reflect current patent law or practice.

35 U.S.C. § 119(e)(3) clearly states that a non-provisional patent application will be given the benefit of the prior filing data of a provisional patent application "if it contains *or is amended to contain* a specific reference to the provisional application." (emphasis added). MPEP § 201.11 explains § 119(e) and lists "four conditions for receiving the benefit of an earlier filing data under . . . 35 U.S.C. 119(e):" (1) same invention disclosed; (2) co-pendency; (3) common inventor; and (4) a reference in the non-provisional application to the provisional. None of those conditions include an oath or declaration listing the provisional patent application.

Applicant has met all the conditions required for claiming priority from the earlier provisional patent application, No. 60/155,802, under current patent practice. The suggestion that Applicant must file a new oath/declaration is in error and must be withdrawn.

35 U.S.C. § 112, first paragraph

The Examiner rejected claims 1, 2, 5-14 and 22-25 under 35 U.S.C. § 112, first paragraph, alleging that the disclosure does not enable one skilled in the art to practice the invention. Specifically, the Examiner indicates that it is "unclear how one with ordinary skill in

the art would compute the input power from these look-up table values." (Paper No. 11, p. 3).

Applicant disagrees.

The look-up table provides a correspondence between input frequency, power level and accumulated error value. In practice, the frequency and accumulated error values are known, allowing an estimate of a corresponding input power level based on the empirical or interpolated data recorded in the look-up table.

According to the Examiner, "[t]his method is unclear . . . because it incorrectly assumes that there is going to be an input power value associated with each set of obtained frequency and AGC integrator accumulator values." (Paper No. 11, pp. 3). The fact is that one input power is associated with each set of frequency and AGC accumulator values. Figs. 5 and 6 clearly show this. For any given accumulator value (vertical axis) and frequency value (Frequency axis), the graph gives a single corresponding input power level value (amplitude axis). It is unclear how one could conclude otherwise.

The Examiner continues "[t]he only time this assumption can be made is if there is always a linear relationship between the three values, but . . . no relationship between these three values has been provided." This is clearly incorrect. In the first place, practice of the claimed invention relies on an empirical, rather than a mathematical, relationship between these variables. An exemplary relationship between the three variables is illustrated in Figs. 5 and 6.

The Examiner continues "the invention is described for determining power values under non-linear conditions." The specification makes no such statement. To the contrary, the

specification clearly assumes that the relationship here is generally linear. However, the specification also notes that a theoretically linear device will experience some non-linearities in the real world. "[D]evices manufactured for the mass consumer market often exhibit variations and irregularities in their operating characteristics, such as gain non-linearities, frequency ripple and temperature effects." (Spec., p. 1). To accommodate this real-world variance that may be unique to each modem, the claimed invention expressly uses real-world empirical testing of the modem so that any such functional irregularities are built into the look-up table that relates frequency, accumulated error value and input power level.

By way of explanation, the look-up table is generated by applying a number of signals of known frequency and power level to the modem. (See Fig. 2, step 202; p. 6, line 2 et seq.) The accumulated error value is then detected for each known frequency and power level. Thus, the calibration data consists of an *empirically obtained* input frequency, power level and accumulated error value for each calibration signal. (See Fig. 2, step 208; p. 6, line 10 et seq.).

Interpolation is then used to provide a related input frequency, power level and accumulated error value based on the actual empirical measurements taken. Interpolating data points between empirical data is a widely used concept with which the Examiner should be familiar and would be readily practicable by one of skill in the art. After calibration, when the input power is to be determined, the input frequency and accumulated error value, which are known, are used to identify an estimate of the corresponding input power using the look-up table.

Claim 1 recites:

1. A method for estimating input power in a cable modem device having a tuner and a modem, the modem having a receiver including an automatic gain control (AGC) circuit with an integrator outputting an accumulated error value, the method comprising the steps of:

inputting a plurality of calibration signals having known frequencies and input power levels into the receiver;

recording calibration data corresponding to each of said plurality of signals, said calibration data including an associated frequency, input power level and accumulated error value for each of said calibration signals;

generating a look-up table comprising said calibration data; and  
storing the look-up table in the modem.

One of ordinary skill in the art, having the benefit of Applicant's specification, could certainly perform these steps and thereby practice the claimed method. The Examiner has not indicated when of the claimed steps a skilled artisan could not practice. The other claims are likewise practicable by one of ordinary skill.

The burden is initially upon the examiner to establish a reasonable basis for questioning the sufficiency of the disclosure. In re Strahilevitz, 668 F. 2d 1229, 212 USPQ 561 (CCPA 1982). In the present instance, the Examiner has failed to carry this burden. Consequently, Applicant submits that the claimed invention is clearly enabled to one of skill in the art based on the present specification. Thus, the rejection under 35 U.S.C. § 112, first paragraph is inappropriate and should be reconsidered and withdrawn.

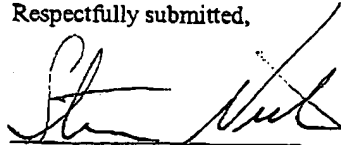
35 U.S.C. § 101

Finally, the Examiner has rejected the claimed invention under 35 U.S.C. § 101 based on the same issues discussed above with regard to the rejection under 35 U.S.C. § 112, namely that the invention was not clearly described in the original specification and claims. Consequently, the Examiner concluded that the claimed invention was inoperative and, therefore, lacked utility as required by § 101.

Applicant respectfully traverses this rejection on the same basis described above. For at least the reasons given above, the Examiner has misconstrued and misapprehended the specification which does, in fact, clearly describe the claimed invention such that one of skill in the art could both make and use the invention as claimed. Consequently, the rejection under 35 U.S.C. § 101 is not longer appropriate and should be reconsidered and withdrawn.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper which have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,



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DATE: 15 November 2002

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